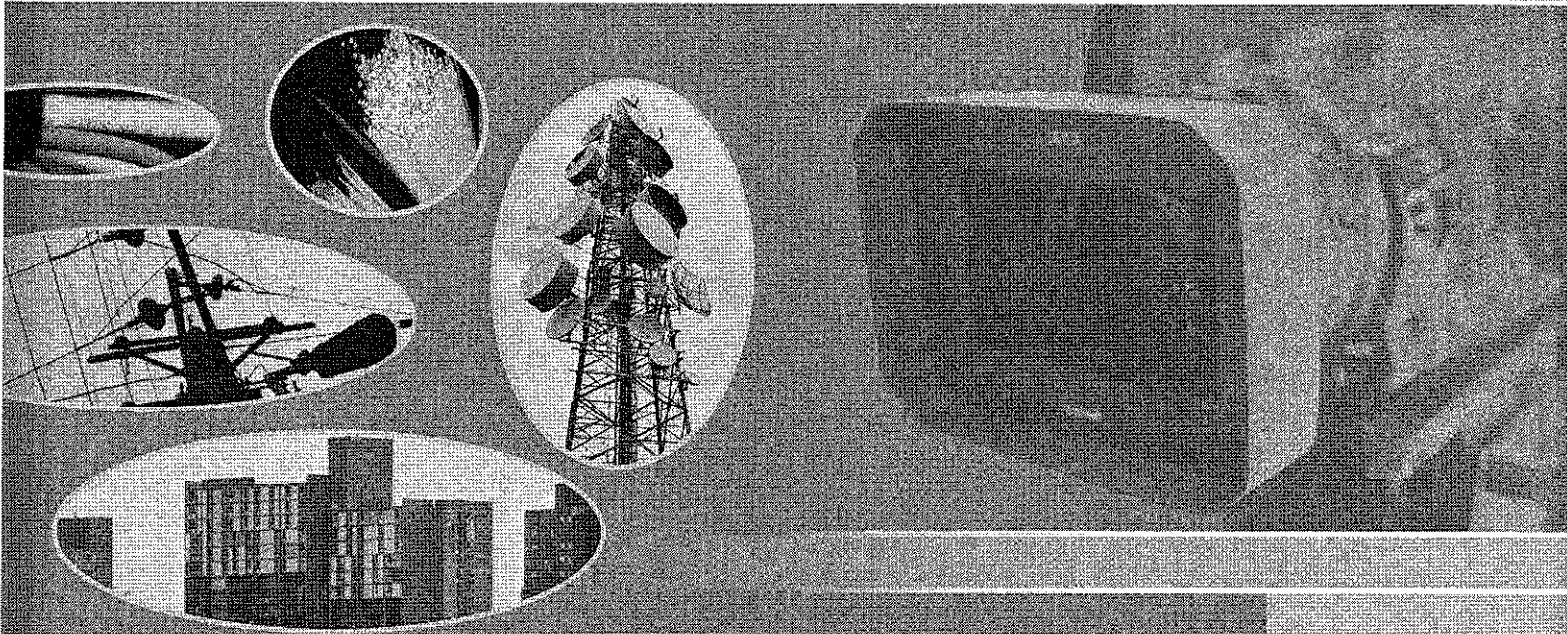


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Statewide Video Franchising Legislation: A Comparative Study of Outcomes in Texas, California and Michigan

March 2009



Report of the Center for Science Technology & Public Policy
HUBERT H. HUMPHREY INSTITUTE OF PUBLIC AFFAIRS

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Table of Contents

Introduction.....	1
Legislative Summary.....	2
Table 1: Summary of Legislative History.....	6
Institutional Stakeholders.....	7
Cable Companies.....	7
Telecommunications Companies.....	7
Cities and Municipalities.....	8
Public, Educational and Governmental Access Entities.....	8
Summary Of Critical Issues.....	9
The Data.....	10
Results.....	11
Table 2: Detailed Minnesota Department of Commerce Questions.....	12
Applications For State Franchises.....	14
Build-Out.....	14
Prices.....	15
Table 3: Price Changes for Three States (Selected Counties).....	17
Table 4: Price Changes for All States, December 2006 to February 2009.....	19
Municipality Franchise Fees and Peg Channels.....	20
Conclusions and Recommendations.....	23
References.....	24
Appendix.....	26
Credit Statement.....	27

Introduction

The Minnesota Legislature commissioned this State Video Franchising Study under S.F. No. 3337 - Conference Committee Report, Energy Omnibus Bill, §29. The bill directs the Department of Commerce (the Department) to contract with the University of Minnesota for a study on the impact of legislation enacted in at least three states that authorize franchises for video service to be issued by a state agency. The bill specifies the content that must be considered in the study and it requires the Department to submit a report to the Legislature.

The researchers were instructed to consult with associations representing a variety of stakeholders, including municipalities and communities of color prior to starting the analytical phase of the study. Furthermore, they were instructed to conduct research and analysis on information pertaining to no fewer than three states (excluding Minnesota) that have authorized franchises for video services to be issued by a state agency. The specific questions posed by the Department are as follows:

- a. the number of video service providers that have applied for a state video franchise;
- b. the number of incumbent video service providers that have elected to terminate an existing franchise agreement and apply for a state video franchise;
- c. the amount of capital invested by new video service providers to furnish video service;
- d. the number of communities in which new video service providers intend to offer video services, as reflected in their applications;
- e. the number of communities with an incumbent video provider in which new providers intend to offer video services;
- f. the number of communities with no incumbent video service provider in which new video service providers intend to offer video services;
- g. the effect on video service prices in communities with an incumbent video provider in which new video service providers offer video services;
- h. the effect on franchise fee revenue received by municipalities from video service providers;
- i. the effect on the number of Public, Educational and Governmental (PEG) channels available to communities;
- j. the effect on the amount of revenues received by municipalities to support the provision of PEG programming in communities;
- k. the effect on the amount of PEG programming available in communities;
- l. the progress of new video providers in meeting any build-out requirements in the law; and
- m. the effect on municipal services provided to communities by video service providers.

The initial stakeholder meetings revealed a keen interest in this project and a strong desire to see analysis of the impact that statewide laws regarding video franchising could have on consumers. In addition to the questions outlined by the Department, stakeholders representing municipalities identified two issues that this study could address: (i) What are the outcomes for consumers relating to wireline television services since the first state video franchising legislation was enacted? (ii) Is there a cause and effect relationship between statewide video franchising (SVF) and increased competition, and does that increased competition lead to improvements in conditions for consumers of wireline television service. Every attempt was made to address all of the issues posed by the Department, as well as industry and community stakeholders.

Following this introduction, the report proceeds with a summary of federal and state video franchising laws. It should be noted that there is a subtle but meaningful distinction between state-issued franchises and state-wide franchises. In the former case, franchise applications are standardized by the state, but municipalities continue to regulate activities of multichannel video programming distributors (MVPDs).¹ In the latter case,

1. The modes of distribution used by MVPDs that are included in this study are cable, satellite, fiber-based, copper-based, and hybrid-fiber coaxial cable. While electric and gas utilities may also participate in this market, they have small market shares and are not included in this analysis.

the MVPDs receive the license to provide service throughout the state, with the stipulation that the provider will build out the entire state in a stated amount of time. This study reviews states with both types of franchise agreements.

The third section of this report focuses on stakeholder analysis, where the critical issues are identified. Although previous studies have highlighted similar concerns, the current study benefits from a longer time horizon within which to observe changing conditions resulting from enactment of SVF laws.

This study utilizes a comprehensive dataset on prices, allowing for some measurement of SVF's impact on consumer welfare. Section four of this report presents information and data sources, while the results of the study are summarized in the fifth section. To make the analysis tractable, three states are investigated in-depth—Texas, Michigan and California. Texas was an obvious choice for this study. Since it was the first state to transfer franchising authority from local authorities to state authorities, this case gives the greatest opportunity to measure the effects of SVF laws. While the laws in Michigan and California were put into effect around the same time, these states add useful demographic and geographic dimensions to the study. Michigan has some similar characteristics to Minnesota, particularly: number of persons between 18 and 64 years of age, home ownership rates, median value of owner-occupied housing units, median household income, and number of building permits. These are important factors in determining usage of transmitted video in a region. While California is twice as large as Minnesota in terms of land area (with more than three times the population density), the case is instructive particularly when it comes to build-out, PEG and customer service issues. Although AT&T is the primary telecommunications company in California, Verizon is aggressively rolling out fiber-to-the-premises (FTTP) in several areas of the state. California, therefore, is an interesting case to observe for the effect of competition on the prices of services.²

In addition to the data analysis, the results section details the responses to the specific questions posted by the Department. Conclusions and recommendations for further analysis follow the results.

Legislative Summary

In February of 2006, the United States Senate began a process to promote robust video competition across the country. The Senate began by outlining certain fundamental principles that they felt should be the hallmark of their debate. First, they wanted to ensure that changes in the communications laws would promote competition among video providers while at the same time facilitating low barriers to entry. Second, the new laws would have to be structured in such a way as to be consistent and competitively neutral. In other words, new video providers would have to operate on an equal footing with incumbent video providers with neither party having the benefit of a pre-existing agreement with a municipal agency. Third, the Senate wanted to make sure that changes to the communications laws would still be grounded on the history of reliance on state and local authorities as being best suited to manage public rights-of-way and to protect the public interest. Fundamental to their discussions was also the notion that increased competition benefits the customer and the only way to increase competition is to allow companies to make reasonable rates of return on their investment while reducing barriers to entry. As each state grapples with the notion of enacting new communications legislation, each must find a way of leveling the playing field between new entrants and incumbent cable operators while maximizing the benefits procured for their constituents.

In the last five to seven years, telephone companies have increasingly sought to expand into the provision of

2. Useful lessons may also be learned from those states where SVF was sought but not passed or not sought at all, or in cases where statewide laws are a hybrid of local and state regulation of the sector. Future investigations of states such as Oregon and Virginia could be fruitful in this respect.

video content. Several factors have contributed to this strategy, including the push by cable television providers into the voice communications business in competition with legacy telephone service providers. In many states, including Minnesota, telephone companies have argued that a state-level franchising authority would ease entry into the video transmission business.

As of December 2008, 28 states had some form of state-level oversight or regulation of video distribution, including several states that had some form of state-level oversight before 2005. From 2005 through 2008, 20 states formally enacted laws governing rights of way, fees and the level of service their residents would receive. Table 1 summarizes the provisions in each of the SVF acts for Texas, Michigan and California. The table also includes similar information for Virginia, which has a hybrid model of municipal and statewide regulation, and Iowa, the only state in Qwest's territory to pass a statewide video franchising law.³

The State of Texas

In Texas, the legislature drafted new video legislation affecting cable service providers and video service providers. Governor Rick Perry signed Texas SB5 in 2005, which created Chapter 66 of the Texas Utilities Code. The amended Utilities Code established state video franchising by transferring franchising authority from cities to the Public Utilities Commission.⁴ This new legislation was a marked change from previous legislation and it meant that video service providers could now enter into franchise agreements on a statewide basis rather than on a municipality-by-municipality basis.

However, in its review of the video franchising landscape, the state knew that it had to look to the past as well as the future. They needed to protect the negotiated agreements already in place at the municipality level while at the same time creating a competitive environment for new companies to enter the market. To do this, the Texas legislature prohibited an incumbent video provider from entering into a state-wide franchise agreement until its existing franchise agreement had expired, unless it provided service to fewer than 40 percent of the customers within a municipal franchise. The legislature also required a video service provider to pay five percent of gross revenues to a municipality as a franchise fee and one percent of gross revenues as a PEG fee to support the capital cost of PEG access channels. Video service providers must also provide the same number of PEG channels that were in effect in each city when the law was adopted, and where no PEG channels existed previously, the video service provider would be required to supply up to three PEG channels. An exception was made for towns with fewer than 50,000 residents, where the provider is required to supply up to two PEG channels.

Texas legislation allows state-issued franchise applicants to define their own "service area footprint" and limit their service rollouts to wealthier neighborhoods.⁵ Additionally, video service providers are affirmatively exempt from mandatory build-out requirements and may use alternative delivery methods, such as satellite technology, to provide video service to their customers. Though it prohibits video service providers from denying access to a group of residents based on income, some believe the footprint and service rollout provisions in the legislation allow for what is called redlining. Redlining is the practice of firms delineating certain areas in a city where they will not provide a service based predominantly on the demographics of that region.⁶ Consumers and consumer groups are often opposed to redlining, especially where it results in video service being provided more exclusively to affluent neighborhoods that can afford to purchase bundled video, television and Internet service.

3. To date, Qwest has not petitioned the state of Iowa for a statewide franchise to broadcast video.

4. Texas 79th Legislature. Bill SB5. 2005. <http://www.capitol.state.tx.us/tlodocs/792/billtext/pdf/SB00005F.pdf> Accessed 2/19/2009.

5. Kathy Grant, Texaltel. Summary of Video Franchising Provisions of SB 5. December, 2005. <http://www.texaltel.org/>. Accessed 02/19/2009.

6. Zenou, Yves and Boccoard, Nicolas. 2000. Racial Discrimination and Redlining in Cities. *Journal of Urban Economics*, Elsevier, vol. 48(2), pages 260-285.

The State of California

On September 29, 2006, the California Legislature passed, and Governor Arnold Schwarzenegger signed, video franchise legislation known as the Digital Infrastructure and Video Competition Act of 2006 (DIVCA).⁷ This law became effective on January 1, 2007, and the California Public Utilities Commission (PUC) began accepting applications for statewide franchises on April 1, 2007 from entities that did not have a local franchise.

As with many instances in which statewide legislation is adopted, DIVCA replaced a system in which franchise agreements were entered into on a local basis with a system in which franchise agreements could be entered into between video service providers on a statewide basis. In enacting DIVCA, the California legislature decided to pursue broad goals. In addition to dealing with video franchises, the legislature also wanted to increase the amount of broadband service offered to its residents, particularly to its residents located in rural or unserved areas and in underserved areas.⁸ The primary goals of DIVCA are to:

1. create a fair and level playing field for all market competitors that does not disadvantage or advantage one service provider or technology over another;
2. promote widespread access to the most technologically advanced cable and video services to all California communities in a nondiscriminatory manner regardless of socioeconomic status;
3. protect local government revenues and their control of public rights-of-way;
4. require market participants to comply with all applicable consumer protection laws; and
5. complement efforts to increase investment in broadband infrastructure and close the digital divide.⁹

California's SVF law stipulates that applicants for statewide franchises shall pay a fee of either five percent of gross revenues or less if the municipality charges the incumbent cable operator less than five percent.¹⁰ State franchise holders shall designate one percent of gross revenues to the funding of PEG systems or whatever was agreed to prior to the law being enacted. For example, in November 2006, the city of Glendale preemptively enacted a two percent PEG fee for future providers. Entrants would be required to pay two percent instead of the minimum one percent allowed under the law.

The SVF law also specifies that the holder of a state franchise shall provide the same number of PEG channels as are activated by the incumbent. If no PEG channels are activated and provided in an area, the local entities may request that the state franchise holder provide up to three PEG channels, with 56 hours per week of programming. Additional PEG channel(s) may be activated if specified usage levels are met. All PEG channels must be placed on the lowest cost tier of service, located on the same channel numbers on all systems, and grouped together. Such programming must also be transmitted in a manner that is standard in the industry. PEG access capacity provided shall be of equal quality and functionality to that offered by commercial channels on the lowest cost tier of service, unless the signal provided to the franchise holder is of lower quality. Lastly, PEG funds required of state franchise holders must be used in a manner that is "consistent with federal law."

Regarding build-out, California allows entrants to phase in the number of localities served. Fiber entrants to the market, in this case Verizon, are required to reach 25 percent of current homes within two years and 40

7. The DIVCA law stipulates that: Effective January 1, 2007, and as a result of the passage of California Assembly Bill 2987 (2006), DIVCA provides for a State video franchising process to be administered by the California Public Utilities Commission. Under DIVCA, new video service providers have the ability to apply for a State video franchise beginning March 2, 2007. In contrast, incumbent cable operators applying for a State franchise must wait until January 2, 2008, at the earliest, before a State-issued franchise may become effective. State franchise applicants are required to designate which areas within the State they intend to serve, with local jurisdictions named to be notified accordingly. Video providers with a state franchise need not obtain a local franchise from the City. Local franchises typically impose significant customer service standards on video providers and can also require various public benefits for the privilege of operating with the City. DIVCA changes the authority of cities to set the terms under which video providers operate in a community. <http://www01.smgov.net/cityclerk/council/agendas/2007/20070424/s2007042407-C.htm>

8. <http://www.cpuc.ca.gov/PUC/Telco/Information+for+providing+service/videofranchising.htm>

9. Ibid.

10. California Assembly Bill 2987. Introduced February 24, 2006. Amended in assembly May 26, 2006.

percent of homes within five years. Copper entrants to the market—here AT&T—must reach 35 percent of homes in three years and 50 percent of homes in five years. Both types of providers must have no less than 25 percent of homes in the low-income strata (\$35,000 or less per annum household income).

The State of Michigan

In December of 2006, after much debate, the legislature of Michigan passed a new statute addressing video franchising arrangements. Governor Jennifer Granholm promptly signed it into law creating Public Act 480 of 2006. Like many other statewide legislative acts, Michigan's video franchising law removed some of the negotiating power that certain municipal officials had in negotiations with cable providers and other video providers. Under various provisions within the statute, local officials would now be prohibited from imposing additional fees or requirements on video service providers. With the benefit of time and other state statutes to use as models, Michigan was able to incorporate many of the same terms in its law that other states had already utilized.

The Michigan statute allows municipalities to assess new entrants for the same franchise fee paid by the cable incumbent, which is capped under federal law at five percent of gross revenues. In the absence of an incumbent, or upon the expiration of the incumbent's franchise agreement, municipalities could levy a franchise fee up to five percent of gross revenues for a new franchise. Section 4 of the act sets the requirements for video service providers' compliance in providing PEG resources.¹¹ Like the Texas bill, the Michigan law requires a video service provider to designate capacity for the same amount of PEG access channels that were in use on the incumbent's system on the effective date of the legislation. However, this legislation sets a cap on the fee that service providers pay to franchising entities at two percent of gross revenues (plus a fee to underwrite the new regulatory costs of the Michigan Public Service Commission).

On some issues, Michigan decided to take a path very different from other states. For example, Michigan's legislation allows incumbent video service providers to break their existing multi-year franchising contracts with municipalities for any reason. Even in the absence of direct competitive harm, video service providers can terminate their old agreements with local authorities in favor of a statewide agreement. Critics of the legislation argue that it not only prevents local governments from managing their rights-of-way, but it also substantially reduces the potential revenue that a local community could receive. Michigan's build-out requirements allow for the phasing in of service areas.

In summary, there is uniformity across the three primary states in this study (and most of the other states that have SVF laws) regarding franchise fees. Matching the incumbent or paying up to five percent of gross revenues is the standard. Rules pertaining to PEG programming are similar, in that three channels is a benchmark. PEG support fees vary between one and three percent of gross revenues, but matching the incumbent is often the target. Right-of-way control is maintained at the local level in Michigan and Texas; California deviates from this by requiring local encroachment permits. The first mover, Texas, does not have a build-out requirement, but it does stipulate that redlining is prohibited. While California and Michigan (as well as several other states) allow phased-in build-out by MVPDs, some states do not have build-out provisions in their respective laws. Other regulations vary widely from state to state, including those regarding institutional network (I-Net) service fees, the handling of customer service and complaint procedures, and whether the incumbent can terminate or abandon service after the SVF law becomes effective. This variability in laws and the differences in demographics across states make it difficult to assess the existence of a causal relationship between the implementation of statewide video franchising laws and consumer outcomes. Nevertheless, this study will investigate the clear actions and results of the new rules or the lack of certain provisions in the SVF laws.

11. State of Michigan Public Acts of 2006. Act No. 480. December 21, 2006. http://www.michigan.gov/documents/mpsc/2006_PA_480_183428_7.pdf. Accessed 02/19/2008.

Table 1: Summary of Legislative History

State	Texas	Michigan	California	Virginia (hybrid model)	Iowa (only Qwest state)
Date	Passed 9/7/2005 Effective 9/7/2005	Passed 12/21/2006 Effective 1/1/2007	Passed 9/29/2006 Effective 1/1/2007	Passed 3/10/2006 Effective 7/1/2006	Passed 5/26/2007 Effective 5/29/2007
Bill Number	SB 5	HB 6456	AB 1715, AB 2987	HB 568, HB 1404	SF 554
Term	No term	10 Years	10 Years	15 years	10 years
Franchise Fee	Match incumbent; 5% of gross revenues maximum	Match incumbent; 5% of gross revenues maximum	Match incumbent; 5% of gross revenues maximum	Match incumbent; 5% of gross revenues maximum	Match incumbent until expiration, then 5% of gross revenues maximum
PEG Channel Capacity	Up to 3 for pop>50k; up to 2 for pop<50k; up to 10 as were active on 9/1/2005	Match incumbent up to 3 channels	Match incumbent; 3 minimum; formula for additional channels	Match incumbent; 3 minimum, 7 maximum	No fewer than 3 for pop>50k; 2 for pop<50k, unless more in place on 7/1/2007
PEG Support Fees	Match incumbent for duration of franchise, then 1% of gross revenues	Match incumbent until expiration, then up to 2% of gross revenues	Match incumbent up to 3% or 1% of gross revenues if no fee exists	Match incumbent up to 1.5% of gross revenues (lesser)	Match incumbent for natural term of franchise
I-Net Service	Match incumbent	Not required	Until expiration of local franchise or 1/1/2009 (later date)	PEG capital fee to support I-Net	Not required after initial agreement
Right of Way Control	Local control maintained	Local control maintained	Local encroachment permit required; right-of-way authority not clearly reserved to local government	Local control maintained, however limited cable oversight applicable to telephone companies	Local control maintained
Customer Service	Not addressed	State enforces standards	State sets standards; local enforcement	Not addressed	Not addressed
Buildout	No buildout requirement	Phasing allowed	Phasing allowed ²	65% households within 7 years ³	Not required
Can incumbent Terminate or Abandon Service?	No, unless they serve fewer than 40% of total subscribers	Yes	Yes	May opt into ordinance franchise	Yes, competition trigger

Notes:

¹ Definition of gross revenues: broad, including video services and advertising.

² Fiber entity (Verizon) must reach 25% of current homes passed within two years and 40% within five years; copper entity (at&t) must reach 35% of homes in three years and 50% in five years; either system must have no less than 25% of homes be low-income (\$35,000 or less per annum in income).

³ Does not include areas where it is not "technically feasible" to provide service, or areas with fewer than 30 occupied dwelling units per mile.

Sources:

Adrian Herbst, "Broadband and Local Strategy Planning, Competition and Technological Developments Necessitating Changes in Rights-of-Way Controls," IMLA, Las Vegas, Nevada, September 14-17, Appendix.
www.baller.com/pdfs/AHerbst_IMLA_Appendix_9-14-08.pdf, accessed 2/25/2008.

Jay T. Spurgin, "State Video Franchise Law: State of Art or State of War?" City of Thousand Oaks, California, APWA Congress Session, August 19, 2008.

Various state laws.

Institutional Stakeholders

As the rivalry over video franchising rights continues unabated, each side looks for ways to reinforce their positions. The main institutional stakeholders are: cable companies; telecommunications companies; cities and municipalities; and PEG entities.¹²

Cable Companies

Cable companies, such as Time Warner, Comcast, Cox Communications, and Charter Communications, are the incumbents in the video market. These companies were the first to enter into agreements with municipalities and county governments in order to establish the terms under which they could provide service to customers in urban, suburban and rural neighborhoods. In fact, the video franchise industry evolved with each franchise agreement that they signed and each municipal right of way to which they gained access.

Cable companies see little benefit from changing the rules of the game from local to statewide franchising, since their rights of way have already been established, as are their positions in the negotiation of fees with municipalities. Cable company representatives assert that phone companies should be required to get local franchises to offer television programming. They anticipate that cable companies would be at a competitive disadvantage vis-à-vis the entrants that get statewide franchises, since pre-existing fee, channel access and institutional requirements would still be in effect. Another argument that cable companies use to forestall statewide entry by telecommunications companies is that the entrants could cherry-pick their customer base, particularly limiting or denying service to poorer areas in the state. In addition, competition from telecommunications companies could drive down prices for cable providers and lower demand for their services. This would be a clear loss to those companies. However, that outcome is uncertain. According to the most recent data released by the Federal Communications Commission, video service prices are more likely to fall if there is rivalry between wireline companies—the overbuild phenomenon. It is possible that telecommunications entrants could have higher costs and higher prices than the incumbents, thereby allowing the incumbent cable companies to raise prices in a more competitive environment.

Telecommunications Companies

The main entrants into the video market are the telecommunications companies, such as AT&T, Verizon and Qwest. Verizon, for example, is spending tens of billions of dollars to upgrade its existing network to provide fiber optic connectivity to homes and businesses. Estimates of the cost of this build-out per subscriber range from \$1,000 to \$1,700. By rolling out fiber-to-the-premises (FTTP) service, Verizon is able to offer customers the ability to enjoy high definition television over a state-of-the-art fiber optic cable network using technology many years more advanced than the coaxial and copper cable technology currently in the ground. Similarly, AT&T rolled out U-Verse, a cable-like service delivered over telephone lines. Although their newer technology gives them a significant advantage, telecommunications companies are starting at a position significantly behind cable companies in the distribution of video to households. Without the benefits of thousands of negotiated and executed franchise agreement to permit them to offer service to consumers, and in the absence of amended video franchising legislation, telecommunications companies must sign up franchise agreements municipality by municipality. Telecommunications companies have strongly voiced the opinion that a system in which local franchising exists perpetuates barriers to entry. Their argument is that consumers would be better off with more competition in the video market and that statewide franchising agreements would

12. Satellite companies and electric utilities are stakeholders as well but they have relatively small market shares.

level the playing field. The promise of competition having a positive effect on households remains to be shown. Nonetheless, telecommunications companies must pursue a course that allows them to recoup the high cost of their technology initiatives.

Cities and Municipalities

For decades, cities, towns and local municipalities relied on cable providers in order to satisfy the cable television and public access requirements of their residents. Under this system, municipalities were able to obtain revenue in the form of right-of-way fees. They were also able to contract for PEG access for their constituents as well as the benefit of readily available broadcasting equipment and facilities. In some instances, video franchise agreements included the ability of municipalities to use institutional networks (I-Nets)¹³ and mandated that those networks be maintained by a cable company's employees without charge to the local municipality.¹⁴ In addition to increasing the options for video service customers, municipalities also hope that the newest entrants—the telecommunications companies—would increase the potential for higher revenues in their coffers. However, the telecommunications companies brought with them video franchise reform. Of greatest concern to municipalities is that local government oversight and the ability to charge fees would be eliminated if video service providers contracted directly with a state entity. Lower revenues from fees and limited access to program distribution would deal a severe blow to municipalities, especially the smaller towns. Yet in the balance is the promise of lower costs for citizens if more competition in video services brings lower prices.

Public, Educational and Governmental Access Entities

PEG access channels are used by local governments and communities to provide public services to area residents. Generally provided on the basic tier of cable service, PEG channels deliver government proceedings, emergency announcements, educational programs and community development, often for low income individuals and minority communities. Historically, local franchising authorities have required video service providers or operators to set aside channels for PEG use as part of their franchise agreement.¹⁵ Local franchise agreements are often not only a foundation for the existence of PEG channels but are also the source of funding for capital costs, operating expenses and sometimes even staffing and equipment provision.

Under statewide video franchising, a local municipality may no longer have the authority to regulate or negotiate PEG requirements as part of a video franchise agreement for their area. Therefore, when deliberating on the transition from local to statewide video franchising, it is important to consider the effect that such a transition might have on PEG channels. While more than half the states have adopted statewide video franchising laws, there have been notable conflicts over PEG channels in states such as California, Michigan and Texas. The experience of PEG channels under statewide video franchising in these three states will serve as case studies for this report.

In May 2008, the Alliance for Community Media (ACM) conducted an on-line survey of its membership and members of the National Association of Telecommunications Officers and Advisors (NATOA) regarding the

13. An institutional network is an advanced, fiber-based communications network that connects government, educational and community institutions. I-Nets facilitate the communication of video, data and voice applications.

14. http://www.birds-eye.net/article_archive/local_video_franchise_asset_or_liability.htm.

15. FCC. Fact Sheet on Public, Educational and Governmental Access Channels. May, 1998. <http://www.fcc.gov/mb/facts/pegfacts.html> Accessed 02/19/2009.

impact of statewide video franchising laws on PEG accessibility.¹⁶ Although sampling was unscientific, the survey did gather information on the perceived effects of statewide video franchising on the organizations' members. ACM's survey received 204 responses from 33 states and more than two-thirds of the respondents resided in states that now have statewide video franchise laws. Of these responses, 140 were from 18 states with statewide video franchising laws in effect. ACM found that 20 and 25 percent of survey respondents indicated that after statewide video franchising was initiated in their state, funding for PEG programming decreased and that they lost or expected to lose channels. Also, forty-one percent of respondents in communities that have Institutional Networks connecting government facilities, educational institutions and PEG facilities reported a loss or reduction in those services. Respondents also registered concerns that the new laws would shift PEG programming to "digital only" channels or that there would be decreased accessibility and visibility of their communications to the public. There was also concern that new franchises would require the purchase of special hardware and charge carriage fees, which were not required under the local franchise system.¹⁷ Local public television stations have been one of the biggest beneficiaries of franchising negotiations at the municipal level. Under this system, local council members and city planners often heard from vocal constituents about the significance of PEG channels for their community. With this as a factor in negotiations, local government officials were often able to procure public access channels that best suited the needs of their individual communities. To the extent that the local governments now find themselves with less leverage relative to video service providers, the areas that are most likely to be affected by revenue shortfalls and diminished service offerings are the PEG channels. Determining the impacts felt by PEG operators as the direct result of statewide franchising policy, or whether these impacts would have been avoided under revised policy, requires further research on a state-by-state basis.

Summary Of Critical Issues

Pros to statewide video franchising:

Among their many arguments, proponents of statewide video franchising assert that statewide video franchising will:

1. result in a modernization of the video infrastructure of many communities during a time of rapid technological change;
2. result in the employment of thousands of people during tough economic times and high unemployment;
3. reduce regulations and create a market environment of greater competition as it lowers barriers of entry for video service providers; and
4. provide additional competition which will result in lower rates and better service for all customers.

Cons to statewide video franchising:

Proponents of local video franchising, however, argue that statewide video franchising will cause the following problems:

16. Alliance for Community Media and the National Association of Telecommunications Officers and Advisors (2008), "Assessing Damage: Survey Shows that State Video Franchise Laws Bring No Rate Relief while Harming Public Benefits," <http://www.natoa.org/policy-advocacy/policy-matters/assessing-the-damage-acm-surve.html>. Accessed 2/26/2009.

17. A striking result in the ACM report is that basic cable rates increased in the communities of two-thirds of respondents after the new statewide franchise law was in place and a new competitor had entered the local market.

1. result in a loss of control, and therefore, a loss of potential revenue to certain communities who otherwise were able to negotiate more favorably and more lucrative agreements than other communities;
2. reduce the desire of video service providers to include build-out language in their agreements which is designed to ensure that less affluent communities receive the same services enjoyed by affluent suburban communities or urban communities;
3. increase the likelihood that upgrades and new investment will be made in those few communities or parts of communities with high populations that can afford the bundled offerings of phone, cable and Internet services but reduce investment in all other communities who cannot afford such services;
4. reduce the accountability for video service quality because video service customers will no longer be able to go to their township board or village or city council for cable problems and as a result, they will have to take their complaints to the state level agency that will be too busy to deal with local issues; and
5. reduce the level of service guarantees because video service providers will be less anxious to negotiate the best deal for an entire state.

The Data

The primary purpose of the analysis in this report is to answer the questions outlined in the introduction to this study. The impact of competition on prices is also one important indicator of how SVF affects consumers of video programming. To that end, information was gathered from: the *Television and Cable Factbook*; public utility commissions in the respective states; the Federal Communications Commission; the U.S. Census Bureau; the U.S. Bureau of Labor Statistics; and other published data sources, reports and academic articles. Several interviews were conducted with institutional stakeholders and government agency officials when published sources were not available.

Although the questions posed by the Department and stakeholders are comprehensive, available information is not uniform. For example, there is no standard method by which the states gather or record contracts with video providers. Michigan's PUC does not have record of any state contracts; the uniform service agreements are administered by the municipalities, and are not reported back to the Commission. An official at the PUC in Texas clearly stated that there were no state-level records of how many companies are in the state. If a company has a municipal franchise, then they are not required to register or apply for a state-issued franchise. The same Texas official also specified that Texas has state-issued franchises and not statewide franchises. Video providers in Texas can request a statewide franchise, but they must be able to provide service statewide in a reasonable period of time. Nevertheless, all of the questions are addressed, and data analysis and simulations were performed to estimate price effects of statewide franchising in video services.

Changes in prices were calculated based on the following Katz (2006) methodology:¹⁸

- Two *Television and Cable Factbook* datasets for "before" and "after" comparisons. December 2006 was used as the "before" dataset for Michigan and California, December 2005 was used for Texas. The "after" dataset for all states was the most recently available release, February 2009.¹⁹

18. Diane S. Katz. "Assessing the Case for Cable Franchise Reform." Mackinac Center for Public Policy. Policy brief, September 19th, 2006. Pages 4-5.

19. December 2005 was chosen because it is the month before SVF went into effect in Texas and February 2009 was used because it is the most recent data. For states that enacted SVF in January 2007, the February 2009 data allowed for two full years of price effects.

- The proxy of the monthly rate, "Basic+Expanded Basic" was obtained for both time periods by calculating the average of the available basic and expanded-basic subscription fees for the chosen counties, and summing the two values.
- The "Rate Per Channel" field was determined by dividing the "Basic+Expanded Basic" field by the average number of channels recorded per county.
- The "Nominal Change" is simply the percentage increase of the "Basic+Expanded Basic" rate over the base year.
- The "Real Change" was obtained by deflating the nominal change by the percentage increase of the Consumer Price Index (CPI) between the two time periods (2005-2009 for Texas, and 2006-2009 for California and Michigan):
where r is change in the real interest rate, n is the nominal rate, and i represents the inflationary percentage change (CPI).
- The CPI series used were the same as the Federal Communications Commission's (FCC's) "Average Rates for Basic Service, Cable Programming Service, and Equipment" 2009 report,

$$(1 + r) = \frac{(1 + n)}{(1 + i)}$$

obtained at the following URL: http://hraunfoss.fcc.gov/edocs_public/attachmatch/DA-09-53A1.pdf Page 48, Attachment 4: "Averages for 1995-2008(1)"

- CPI series CUUR0000SA0 (All Items) and CUUR0000SA0L1E (All Items Less Food and Energy) were obtained from www.bls.gov, both updated through January 1, 2009 (rebased to 1995 in the FCC's report).

Results

Table 2 presents a summary of the answers to the questions posed by Minnesota's Department of Commerce.

Table 2: Detailed Minnesota Department of Commerce Questions

	TEXAS	MICHIGAN	CALIFORNIA
a. # new providers applying for state franchise	5 new providers operating since the enactment of the legislation (1/1/2006)	1 new provider operating since the enactment of the legislation (1/1/2007)	4 new providers operating since the enactment of the legislation (1/1/2007)
b. # incumbent providers applying for state franchise	2005: 2 incumbents seeking amendments 2006: 15 incumbents seeking amendments 2007: 14 incumbents seeking amendments 2008: 14 incumbents seeking amendments	No data available	2007: 9 incumbent applicants 2008: 9 incumbent applicants 2009: 2 incumbent applicants (through 2/23/2009)
c. # amount of capital invested by new providers	Proxy: 260.99 additional miles of plant recorded in the Television and Cable Factbook after the legislation passed through Feb 2009	Proxy: 24342 additional miles of plant recorded in the Factbook after the legislation passed through Feb 2009	Proxy: 46098.9 additional miles of plant recorded in the Television and Cable Factbook after the legislation passed through Feb 2009
d. # communities in which new providers are offering service	85 Community Units (as designated by the FCC)	6 Community Units (as designated by the FCC)	70 Community Units (as designated by the FCC)
e. # of communities with an incumbent provider in which new providers are offering service	33 Community Units	3 Community Units	46 Community Units
f. # of communities with no incumbent providers in which new providers are offering service	52 Community Units	3 Community Units	24 Community Units
g. Effect on prices after new providers enter a market with existing service	As of 1/1/2006, the FCC's 2009 Cable Industry Prices report shows that expanded basic and basic subscription fees were 15.5 % lower and 10% lower in markets with a second wireline provider	According to the FCC's 2009 Cable Industry Prices report, markets with a second wireline provider showed a 10.3% decrease in expanded basic service subscription fees, and 5.9% decrease in basic service fees, as of 1/1/2007	According to the FCC's 2009 Cable Industry Prices report, markets with a second wireline provider showed a 10.3% decrease in expanded basic service subscription fees, and 5.9% decrease in basic service fees, as of 1/1/2007
h. Effect on municipality franchisee fee revenues	Provider pays 5% of gross revenue to municipality	Provider pays same as incumbent or, upon contract expiration, a fee not to exceed 5% of gross revenue	Provider pays up to 5% of gross revenues for a franchise fee, which is given to local entities. Local entity can also impose up to 1% fee for PEG only, which most local entities have done.
i. Effect on available PEG channels	Because of lack of operating and staff funding, some PEG channels dropped below the 8 hour programming requirement and were taken off the air	Comcast attempted to move all PEG channels from basic tier to digital 900 range which would require all subscribers to upgrade to digital equipment	AT&T has packaged PEG channels into a streaming video type of broadcast instead of standard broadcasts. AT&T has also made it more difficult to access these channels

Table 2: Detailed Minnesota Department of Commerce Questions

	TEXAS		MICHIGAN		CALIFORNIA
j. Effect on PEG-support revenue	Provider pays 1% of gross revenue for PEG capital cost support to municipality. However, many local franchise agreements had providers paying operating and staffing expenses. These payments may no longer be made under state franchising		Provider pays same as incumbent or, upon contract expiration, a fee not to exceed 2% of gross revenue		Example: "The city of Los Alamitos experienced a reduction in cable television franchise revenue and PEG revenue in 2008; PEG revenues were reduced from roughly \$127,283 per year to a conservative estimate of \$25,000"
k. Effect on available PEG programming	Same number of channels must be made available by service provider. However, channels must produce 8 hours of programming content daily. Channels without 8 hours of programming may be (and have been) taken off the air for an indeterminate amount of time		Same number of channels must be made available by service provider. However, channels must produce 8 hours of programming content daily, for 3 consecutive months. Channels without 8 hours of programming may be taken off the air for an indeterminate amount of time		California Assembly Bill #2387 ensures PEG channels will not be reduced simply due to a change in service provider. The bill mandates that the same number of channels exist after as before, unless extraneous circumstances necessitate closing or adding of a PEG channel
l. Progress of any new providers in meeting build-out requirements	"The holder of a state-issued certificate of franchise authority shall not be required to comply with mandatory build-out provisions." 1,412 Community Units served before legislation, 1,462 Community Units served afterwards		Service providers are exempt from build-out requirements; within 2 years 25% of households served are low income, 30% within 5 years, 1,517 Community Units served before legislation, 1,520 Community Units served afterwards		At end of the year 2007, AT&T and Verizon have approximately 6% buildout. DIVCA says AT&T is mandated to have 35% buildout after three years, and 50% after 5 years. Verizon is mandated to have 25% buildout after two years, and 40% after 5 years. 1,000 Community Units served before legislation, 1,032 Community Units served afterwards
m. The effect on municipal services provided to communities by video service providers	Institutional network capacity and cable service to public buildings must be provided at the same capacity or extent as at the effective date of legislation, provide that the municipality compensates the provider for the incremental cost of the capacity or service		As of 3/1/2008, a lawsuit filed against Comcast prohibited the provider from instituting a programming shuffle that would have rendered PEG channels inaccessible to customers without digital converters, estimated at 35% - 40% of Comcast customers in Michigan - approximately 400,000 people (Saveaccess.org)		California DIVCA law specifies new PEG channels to be added if programming increases to a certain number of hours. It's too early to have reliable information on how many municipalities have leveraged this part of the law

Applications for State Franchises

- a. The number of video service providers that have applied for a state video franchise.
- b. The number of incumbent video service providers that have elected to terminate an existing franchise agreement and apply for a state video franchise.

Statewide video franchising—or in some states the practice of state-issued franchises—has led to an increase in new providers, but the numbers are underwhelming. In Texas, five new providers began operating since legislation was enacted three years ago. California saw four new providers appear since January of 2007, while only one new provider entered Michigan's video services market in the same period. Many more applications were received from incumbent companies than were received from new entrants in Texas and California.²⁰ A key question is whether the incumbents dropped areas when they applied for state-issued franchises. This is a difficult question to answer because the data are not consistently collected at the state level across all states. Texas reports occurrences when cable companies requested amendments to remove cities and towns from their service area. In 2005 and 2006, no removals were recorded for municipalities in Texas. However, 2007–2009 saw an uptick in removals, totaling several dozen. Scores more were collectively added to the service areas of cable companies, as their rivals jockeyed for competitive positions in the state. All in all, the largest cable companies in Texas expanded their number of municipalities served. However, it is unclear from the data whether cable companies dropped low-income regions. SB5 does have a provision forbidding video providers from denying service base on income level.

Build-Out

- c. The amount of capital invested by new video service providers to furnish video service.
- d. The number of communities in which new video service providers intend to offer video services, as reflected in their applications.
- e. The number of communities with an incumbent video provider in which new providers intend to offer video services.
- f. The number of communities with no incumbent video service provider in which new video service providers intend to offer video services.
- l. The progress of new video providers in meeting any build-out requirements in the law.²¹

A primary measure of corporate commitment to serving a region is the amount of financial capital that the company plans to spend in that region in the near and long term. Since such data are proprietary or available at high levels of aggregation, a proxy for capital cost is used in this study. The Television and Cable Factbook reports miles of plant data, which give some indication of a company's capacity to broaden its service area. From January 2005 through February 2009, only 261 miles of plant (0.1% of land area) were added in Texas. This is a small fraction compared to the miles of plant that were added in Michigan (24,342; 43% of land area) and in California (48,089; 31% of land area). It should be noted that these numbers only reflect expansion of cable providers. Similar metrics for the telecommunications companies were not available.

The propensity for SVF to increase service to customers can be measured by observing increases or reductions in the numbers of communities served before and after the law took effect. Clearly, it would be best if there were a way to tell what would have happened without SVF and compare that to what did happen. However, forecasting build-out propensities or strategies for the incumbents and entrants was not possible. It can be

20. Data on applications from incumbent firms were not available at the time this report was written.

21. Note that these bullet points are labeled according to the questions listed at the beginning of this report.

assumed, however, that part of a company's strategy to expand services to several communities at one time would hinge on their ability to acquire state-wide franchises, or at least state-issued franchises. This was indeed the case for one of the telecommunications companies that was interviewed for this study.

From Table 2 it is clear that Texas and California saw major growth in the number of communities served by MVPDs (85 and 70, respectively), while Michigan saw modest growth in the number of communities served. With these limited observations, there is no clear indication that incumbents forestall market entry by new providers under SVF. For Texas more communities were served by new video service providers when no incumbent was present than when there was an incumbent present. The reverse is true in the case of California. It is plausible that the presence of an incumbent did not deter entrants into new markets because those markets were likely to be high revenue generators. For Michigan, the number of communities served by new providers increased by equal amounts whether or not there was an incumbent in the market.

Build-out requirements vary by state. Neither Texas nor Michigan has build-out stipulations in their regulations for SVF, however both states over time have increased vigilance regarding redlining. California does give clear mandates to Verizon and AT&T regarding the amount of service area they need to cover within specified time periods. The requirements are different for the two telecommunications companies even within the same state. Requirements or not, all the states do experience an increase in the number of communities served by MVPDs.

As of the end of 2007, incumbent video providers offered video programming to 96 percent of households in their areas, or a 96 percent build-out rate. At the same time, AT&T and Verizon were offering service to 800,000 households in their area, which correlates to a 6 percent build-out rate.

Since AT&T and Verizon are prominent in California's video franchising market, provisions in DIVCA were written specifically for them. For example, the new video providers' build-out requirements are divided into those with more or fewer than one million telephone customers in the state. For those with more than one million customers (Verizon and AT&T,) the build-out requirements are further broken down into providers with a fiber optic network (Verizon) and those without (AT&T.) Regulations differ between those video providers with over one million telephone customers who employ fiber networks (Verizon) and those with over one million telephone customers who do not employ fiber networks (AT&T). These companies negotiated with the state of California to come to a consensus for these numbers.

Prices

g. The effect on video service prices in communities with an incumbent video provider in which new video service providers offer video services.

This question was investigated using two different methodologies. First, the newly published Federal Communications Commission Cable Industry Prices Report was used to get national changes in wireline video prices. Since Texas' SVF law went into effect in January 2006, and if Texas performed at national levels, then the FCC data indicate that expanded basic and basic subscription fees would be 15.5 percent and 10 percent lower (respectively) in markets with a second wireline provider. In other words, if a cable company entered a market with an incumbent cable company, then subscription fees would be significantly lower than they would have been if entry had not occurred or if a satellite dish provider had entered the market instead. For California and Michigan, expanded basic service subscription fees and basic service fees would be 10.3 percent and 5.9 percent lower (respectively) if both states performed at national levels. These FCC findings are consistent with their reports of past years on cable industry prices.

Yet these figures presume that the states follow national trends. In an effort to get more specific information on price changes following SVF regulations, the Katz methodology that is described in the Data section of this report was utilized. For each state, a sample of counties was selected for the analysis. The three most populated counties were chosen and three counties that were at or above the 50th percentile level of population (relative to the other counties in the state) were selected. To maintain geographic and demographic diversity, other counties were added to the sample.

Table 3 reports the results of this procedure. It is clear from these calculations that SVF does not necessarily lead to increased competition, which in turn is expected to lead to lower prices. This is the conclusion that the newly published FCC report reaches as well. California and Michigan both experienced nominal and real price increases in video services even while statewide franchising was available. Real prices (corrected for core inflation) grew by 69 percent and approximately 22 percent for California and Michigan, respectively, over a two-year period. Commodity bundling by telecommunications companies and expensive infrastructure build-outs by telecommunications companies (particularly Verizon) can lead to higher prices even when there is increased rivalry. In this environment, the incumbent (cable) providers do not have an incentive to lower their prices, since their rivals are raising theirs. Escalating prices can be the result of this type of oligopolistic competition.

In the case of Texas, real prices fell by 7.4 percent over the three-year period that state-issued franchises had been attainable. There are several cable companies vying for market share in Texas. The FCC report shows that overbuild by cable companies was the main correlative factor in the reduction of video service prices. In addition, it is possible that the longer time horizon for competition to take hold in Texas allows prices to eventually fall as competition heats up. Nevertheless, there is no one outcome in the data; the presence of SVF is not necessarily correlated with lower video service prices.

Real prices do not correct for all of the systemic changes in the market for video. It is possible that higher prices reflect higher quality services. That is, video service customers might be paying higher prices and getting access to more programming—more channels. The price data were, therefore, corrected for changes in the number of channels provided. The second page of Table 3 shows nominal and real changes of video service prices, based on a rate-per-channel calculation. Interestingly, all three states see prices increase, with Texas now presenting the most dramatic increase in prices. That would be the case if there was little movement in the number of channels offered, while prices escalated. It should be noted that if changes in prices and the number of channels in Texas are calculated from 2006 instead of from 2005, then the dramatic increase in quality adjusted prices vanishes.

This quality-adjusted price calculation tells an interesting story about the markets in only three states. Yet, what happened in the other states that have SVF? How do price changes in Minnesota—which does not have SVF—match up with those in other states that passed statewide franchising laws? Table 4 presents a cross section of pricing calculations from December 2006 to January 2009, even for those states that initiated SVF in 2005. For comparison's sake, calculations for price changes are included with those for states that have SVF and Minnesota. The states are rank ordered from largest to smallest change in real prices on a rate per channel basis.

Interestingly, Minnesota's real price increases during the two-year time period rank near the top.²² Yet there are two states—California and North Carolina—that have even higher increases in video service prices. This begs the question: Would statewide video franchising lead to downward pressure on prices in Minnesota? Based on the analysis in this report, the answer to this question depends on which companies would enter the market, the nature of technology utilized by the companies and the type of products offered.

Table 3: Price Changes for Three States (Selected Counties)

TEXAS									
County	Population	Basic + Expanded			Rate Per		Nominal Change	Real Change Less	
		2005	2009	Channel 2006	Channel 2009	Channel 2006		Channel 2009	Food
Harris	3,935,855		\$49.69	\$45.01	\$0.38	\$0.28	-9.40%	-22.70%	-17.04%
Dallas	2,366,511		\$43.28	\$52.46	\$0.53	\$0.15	21.23%	3.44%	11.01%
Tarrant	1,717,435		\$46.99	\$74.20	\$0.48	\$0.53	57.91%	34.73%	44.60%
Travis	974,364		\$50.97	\$55.60	\$0.40	\$0.39	9.08%	-6.93%	-0.11%
Lubbock	260,901		\$55.36	\$72.18	\$0.67	\$0.67	30.38%	11.25%	19.40%
Midland	126,408		\$41.94	\$65.57	\$0.59	\$0.52	56.34%	33.40%	43.17%
Llano	18,394		\$62.73	\$61.89	\$1.03	\$0.90	-1.34%	-15.82%	-9.65%
Eastland	18,337		\$45.13	\$41.89	\$0.90	\$0.72	-7.19%	-20.81%	-15.01%
Bosque	17,942		\$47.27	\$51.75	\$0.86	\$0.82	9.49%	-6.58%	0.26%
TEXAS	--		\$51.90	\$52.50	\$0.78	\$0.64	1.16%	-13.69%	-7.37%
MICHIGAN									
County	Population	Basic + Expanded			Rate Per		Nominal Change	Real Change Less	
		2006	2009	Channel 2006	Channel 2009	Channel 2006		Channel 2009	Food
Wayne	1,985,101		\$50.02	\$56.36	\$0.69	\$0.81	12.69%	5.85%	5.37%
Oakland	1,206,089		\$59.49	\$59.17	\$0.76	\$0.70	-0.54%	-6.57%	-6.99%
Macomb	831,077		\$62.35	\$68.25	\$0.80	\$0.88	9.46%	2.82%	2.36%
Ingham	279,295		\$38.75	\$74.20	\$0.51	\$0.98	91.48%	79.86%	79.06%
Gratiot	42,141		\$25.21	\$55.44	\$1.07	\$1.70	119.91%	106.57%	105.64%
Mecosta	42,090		\$41.33	\$69.71	\$1.15	\$2.79	68.68%	58.44%	57.73%
Chippewa	38,922		\$42.30	\$42.61	\$0.78	\$1.07	0.74%	-5.37%	-5.80%
MICHIGAN	--		\$42.56	\$55.46	\$0.97	\$1.33	30.31%	22.40%	21.85%
CALIFORNIA									
County	Population	Basic + Expanded			Rate Per		Nominal Change	Real Change Less	
		2006	2009	Channel 2006	Channel 2009	Channel 2006		Channel 2009	Food
Los Angeles	9,878,554		\$42.29	\$63.33	\$0.51	\$0.82	49.73%	40.64%	40.01%
Orange	2,997,033		\$41.66	\$56.10	\$0.39	\$0.81	34.64%	26.47%	25.90%
San Diego	2,974,859		\$50.06	\$60.03	\$0.82	\$1.15	19.93%	12.65%	12.15%
Sacramento	1,386,667		\$43.28	\$51.16	\$0.58	\$1.07	18.21%	11.03%	10.54%
San Francisco	764,976		\$51.06	\$60.23	\$0.68	\$0.80	17.96%	10.80%	10.30%
Butte	218,779		\$55.69	\$48.75	\$1.18	\$2.42	-12.46%	-17.77%	-18.14%
Yolo	195,844		\$34.70	\$58.44	\$2.89	\$4.87	68.41%	58.20%	57.49%
Shasta	179,427		\$53.50	\$65.33	\$1.09	\$2.31	22.10%	14.69%	14.18%
CALIFORNIA	--		\$45.24	\$81.33	\$0.78	\$1.57	79.78%	68.87%	68.11%

Table 3: Price Changes for Three States (Selected Counties)

TEXAS

County	Population	Basic + Expanded		Rate Per		Nominal Change		Real Change Less	
		2005	2009	Channel 2006	Channel 2009	(Based on Rate Per Channel)	Food + Energy	Food + Energy	Food + Energy
Dallas	2,366,511	\$43.28	\$52.46	\$0.53	\$0.15	-71.41%	-75.61%	-73.82%	-73.82%
Eastland	18,337	\$45.13	\$41.89	\$0.90	\$0.72	-20.34%	-32.03%	-27.05%	-27.05%
Llano	18,394	\$62.73	\$61.89	\$1.03	\$0.90	-12.68%	-25.49%	-20.03%	-20.03%
Midland	126,408	\$41.94	\$65.57	\$0.59	\$0.52	-11.00%	-24.06%	-18.49%	-18.49%
Bosque	17,942	\$47.27	\$51.75	\$0.86	\$0.82	-5.06%	-18.99%	-13.06%	-13.06%
Travis	974,364	\$50.97	\$55.60	\$0.40	\$0.39	-4.05%	-18.13%	-12.13%	-12.13%
Lubbock	260,901	\$55.36	\$72.18	\$0.67	\$0.67	0.38%	-14.35%	-8.08%	-8.08%
Tarrant	1,717,435	\$46.99	\$74.20	\$0.48	\$0.53	8.43%	-7.48%	-0.71%	-0.71%
Harris	3,935,855	\$49.69	\$45.01	\$0.38	\$0.28	61.49%	37.79%	47.88%	47.88%
TEXAS	--	\$51.90	\$52.50	\$0.78	\$0.64	161.49%	123.11%	139.46%	139.46%

MICHIGAN

County	Population	Basic + Expanded		Rate Per		Nominal Change		Real Change Less	
		2006	2009	Channel 2006	Channel 2009	(Based on Rate Per Channel)	Food + Energy	Food + Energy	Food + Energy
Gratiot	42,141	\$25.21	\$55.44	\$1.07	\$1.70	59.10%	49.45%	48.78%	48.78%
Oakland	1,206,089	\$59.49	\$59.17	\$0.76	\$0.70	-7.87%	-13.45%	-13.85%	-13.85%
Macomb	831,077	\$62.35	\$68.25	\$0.80	\$0.88	10.23%	3.54%	3.08%	3.08%
Wayne	1,985,101	\$50.02	\$56.36	\$0.69	\$0.81	17.06%	9.95%	9.46%	9.46%
Chippewa	38,922	\$42.30	\$42.61	\$0.78	\$1.07	36.63%	28.34%	27.76%	27.76%
Ingham	279,295	\$38.75	\$74.20	\$0.51	\$0.98	91.48%	79.86%	79.06%	79.06%
Mecosta	42,090	\$41.33	\$69.71	\$1.15	\$2.79	141.55%	126.89%	125.87%	125.87%
MICHIGAN	--	\$42.56	\$55.46	\$0.97	\$1.33	37.24%	28.91%	28.33%	28.33%

CALIFORNIA

County	Population	Basic + Expanded		Rate Per		Nominal Change		Real Change Less	
		2006	2009	Channel 2006	Channel 2009	(Based on Rate Per Channel)	Food + Energy	Food + Energy	Food + Energy
San Francisco	764,976	\$51.06	\$60.23	\$0.68	\$0.80	17.96%	10.80%	10.30%	10.30%
San Diego	2,974,859	\$50.06	\$60.03	\$0.82	\$1.15	39.36%	30.90%	30.31%	30.31%
Los Angeles	9,878,554	\$42.29	\$63.33	\$0.51	\$0.82	61.49%	51.69%	51.01%	51.01%
Yolo	195,844	\$34.70	\$58.44	\$2.89	\$4.87	68.41%	58.20%	57.49%	57.49%
Sacramento	1,386,667	\$43.28	\$51.16	\$0.58	\$1.07	84.70%	73.49%	72.71%	72.71%
Butte	218,779	\$55.69	\$48.75	\$1.18	\$2.42	104.01%	91.63%	90.77%	90.77%
Orange	2,997,033	\$41.66	\$56.10	\$0.39	\$0.81	108.79%	96.12%	95.24%	95.24%
Shasta	179,427	\$53.50	\$65.33	\$1.09	\$2.31	112.24%	99.36%	98.47%	98.47%
CALIFORNIA	--	\$45.24	\$81.33	\$0.78	\$1.57	100.46%	88.29%	87.45%	87.45%

Table 4: Price Changes for All States, December 2006 to February 2009

State	Based on Expanded + Basic Fees			Based on Rate Per Channel		
	Nominal Increase	Real Change	Real Change Less Food + Energy	Nominal Increase	Real Change	Real Change Less Food + Energy
CALIFORNIA	79.78%	68.87%	68.11%	100.46%	88.29%	87.45%
WYOMING	75.66%	65.00%	64.26%	80.36%	69.42%	68.66%
NORTH CAROLINA	23.39%	15.90%	15.38%	48.23%	39.24%	38.61%
ALABAMA	56.40%	46.91%	46.25%	46.86%	37.95%	37.33%
MINNESOTA	40.34%	31.82%	31.23%	41.79%	33.19%	32.59%
MONTANA	42.62%	33.97%	33.36%	41.65%	33.06%	32.46%
INDIANA	27.93%	20.17%	19.63%	41.02%	32.47%	31.87%
OREGON	43.55%	34.84%	34.23%	40.65%	32.11%	31.52%
TENNESSEE	42.49%	33.84%	33.24%	38.42%	30.02%	29.44%
MICHIGAN	30.31%	22.40%	21.85%	36.93%	28.62%	28.05%
NEW YORK	18.43%	11.24%	10.74%	30.80%	22.86%	22.31%
SOUTH CAROLINA	32.69%	24.64%	24.08%	30.26%	22.35%	21.80%
ILLINOIS	33.03%	24.95%	24.39%	29.18%	21.34%	20.80%
WISCONSIN	27.57%	19.83%	19.30%	25.70%	18.07%	17.54%
WEST VIRGINIA	15.14%	8.16%	7.67%	24.55%	16.99%	16.47%
COLORADO	27.57%	19.83%	19.29%	24.23%	16.69%	16.16%
WASHINGTON	21.46%	14.09%	13.58%	20.36%	13.06%	12.55%
SOUTH DAKOTA	40.58%	32.05%	31.46%	20.15%	12.86%	12.35%
GEORGIA	18.01%	10.85%	10.35%	18.67%	11.47%	10.97%
LOUISIANA	19.90%	12.63%	12.12%	15.95%	8.92%	8.43%
MISSISSIPPI	20.14%	12.85%	12.34%	15.73%	8.71%	8.22%
MISSOURI	27.85%	20.09%	19.55%	15.40%	8.39%	7.91%
NEVADA	22.89%	15.43%	14.91%	14.10%	7.17%	6.69%
ARKANSAS	17.09%	9.98%	9.49%	13.24%	6.37%	5.89%
VIRGINIA	13.16%	6.30%	5.82%	12.76%	5.92%	5.45%
PENNSYLVANIA	9.00%	2.38%	1.92%	12.73%	5.89%	5.41%
CONNECTICUT	27.36%	19.64%	19.10%	12.24%	5.42%	4.95%
TEXAS	15.91%	8.88%	8.39%	10.66%	3.95%	3.48%
IOWA	12.54%	5.71%	5.24%	10.35%	3.66%	3.19%
OKLAHOMA	11.69%	4.92%	4.44%	9.88%	3.21%	2.75%

Table 4: Price Changes for All States, December 2006 to February 2009

State	Based on Expanded + Basic Fees			Based on Rate Per Channel		
	Nominal Increase	Real Change	Real Change Less Food + Energy	Nominal Increase	Real Change	Real Change Less Food + Energy
VERMONT	23.17%	15.70%	15.18%	9.53%	2.89%	2.42%
NEBRASKA	17.59%	10.45%	9.96%	7.72%	1.18%	0.73%
MAINE	7.16%	0.66%	0.21%	7.55%	1.02%	0.57%
ARIZONA	12.80%	5.95%	5.48%	6.47%	0.01%	-0.44%
KANSAS	11.40%	4.64%	4.17%	4.75%	-1.61%	-2.05%
IDAHO	21.40%	14.04%	13.52%	3.57%	-2.72%	-3.15%
KENTUCKY	17.86%	10.71%	10.21%	3.22%	-3.05%	-3.48%
UTAH	8.09%	1.54%	1.08%	-0.77%	-6.79%	-7.21%
NEW JERSEY	18.70%	11.50%	10.99%	-1.23%	-7.22%	-7.64%
NEW HAMPSHIRE	0.20%	-5.88%	-6.30%	-1.79%	-7.75%	-8.16%
FLORIDA	4.50%	-1.84%	-2.28%	-2.81%	-8.71%	-9.12%
MARYLAND	6.43%	-0.03%	-0.48%	-4.38%	-10.18%	-10.58%
RHODE ISLAND	1.64%	-4.53%	-4.95%	-4.90%	-10.67%	-11.07%
NORTH DAKOTA	9.77%	3.11%	2.64%	-9.35%	-14.85%	-15.23%
NEW MEXICO	-0.74%	-6.76%	-7.18%	-12.02%	-17.36%	-17.73%
ALASKA	-14.81%	-19.97%	-20.33%	-16.47%	-21.54%	-21.89%
MASSACHUSETTS	26.89%	19.19%	18.65%	-17.12%	-22.15%	-22.50%
OHIO	---	---	---	---	---	---
DELAWARE	---	---	---	---	---	---
HAWAII	---	---	---	---	---	---

Municipality Franchise Fees and Peg Channels

- h. The effect on franchise fee revenue received by municipalities from video service providers.
- i. The effect on the number of PEG channels available to communities.
- j. The effect on the amount of revenues received by municipalities to support the provision of PEG programming in communities.
- k. The effect on the amount of PEG programming available in communities.
- m. The effect on municipal services provided to communities by video service providers.

Table 2 summarizes the answer to these questions. The information there was gathered through interviews with PEG stakeholders and officers in state PUCs. Below are summary descriptions by state of how SVF affected franchise fees, public access channel distribution and access of local institutions to tiered programming.

Texas

Despite the specific language directed toward PEG funding and channel availability, a number of complaints have been reported to the Texas authorities since the statute was signed into law. These include allegations that the new law has: (i) reduced or limited the amount of PEG fees that municipalities can collect from video service providers, (ii) eliminated the ability of consumers to get free access to television equipment and studio space which had previously been mandated in local franchise agreements, and (iii) resulted in the termination of employees at the incumbent video service providers who had previously supported the operation of PEG access channels.²³ According to testimony to the FCC by Sharon King of ACM, the Texas legislation resulted in a loss of local franchise funding in Dallas, Texas, that could not be replaced from the city's general fund.²⁴ The funding from local franchise agreements had previously accounted for 50 percent of Dallas' PEG operating budget and the loss of this funding resulted in a budget cut of 22 percent for the 2006 fiscal year.²⁵

A similar situation resulted in the cessation of broadcast from a PEG channel in San Antonio, Texas. In late 2005, Time Warner ended local franchising negotiations with the city of San Antonio to apply for a state-issued franchise. On January 1, 2006, Time Warner dropped San Antonio Public Access because the channel had dipped below the 8 hour minimum daily programming required by the state franchising law.²⁶ The reduced daily programming produced by the channel was the result of diminished resources when Time Warner announced that they would no longer provide studio and staffing support to the channel after the state-issued franchise had been granted.

Finally, another common complaint from PEG operators is the lack of "same channel designation" to which some commercial or network channels are entitled. Under this designation, a PEG channel would be assigned the same channel number across video providers and service types. Though major channels are allowed this convenience, a single PEG channel may be scattered across the channel ranges of each provider. For instance, the San Antonio Education channel is listed as Channel 19 on Grande Communications' service, Channel 98 on Time Warner Cable and Channel 99 on AT&T's U-Verse service.²⁷ Though it may not affect the programming or operation of each channel, channel inconsistency is a source of inconvenience for both PEG operators and public viewers.

23. Josh Goodman, "Unscripted Ending: The Picture Gets Blurry for Public Access Television," governing.com, February 2008. <http://www.governing.com/articles/0802tv.htm> Accessed 02/19/2009.

24. Testimony of Sharon King, Alliance for Community Media, for the Federal Communications Commission, Annual Assessment of the Status of Competition For the Delivery of Video Programming, February 10, 2006. MB Docket No. 05-255. Accessed 02/19/2009.

25. Ibid.

26. Rondella Hawkins, City of Austin, Texas. State Telecommunication Law: Time For a Change. Presentation to Minnesota Association of Community Telecommunications Administrators. September 13-14, 2007. <http://www.tatoa.org/docs/MACTA2007finalpresentation.pdf>. Accessed 02/19/2009.

27. Gabriel Garcia, Assistant City Attorney, City of San Antonio. Texas Community Media Summit. Presentation, University of Texas, Austin, Texas. March 1, 2008. <http://21stcenturyproject.org/docs/media/GGSB5.ppt>. Accessed 02/19/2008.

Michigan

In 2007, Comcast announced that it would move all PEG channels to a digital signal with channels in the 900-series. Moving the channels from the basic cable tier to a digital format would require many customers to upgrade their equipment by purchasing or renting a new set-top box. U.S. District Judge Victoria Roberts issued a restraining order to prevent Comcast from implementing the change when she found that, although it does not violate the 2006 Michigan law, it violates federal legislation from 1992, which requires public access channels to be provided to basic service subscribers without discrimination.²⁸ In 2008, the Michigan House issued an amendment to PA480, which required service providers to "provide PEG at equivalent audio visual quality, functionality and accessibility to that of commercial channels carried on the lowest service tier without the need for additional equipment."²⁹

Given that many households still receive video service on an analog signal, the move to digital would be an inconvenience and possibly present an added cost to households. However, the United States is set to undertake a digital TV (DTV) transition in mid-2009. After the transition, all television in the United States will be sent on a digital signal and many consumers will need to purchase new equipment.³⁰ Given that every household will need to upgrade, regardless of their PEG viewership, the effect of switching PEG channels to digital will be minimized. However, it may still be possible that a video service provider would attempt to move PEG channels to a non-basic tier. Therefore, careful consideration of the digital issue should be made when legislation is being crafted.

California

The first two entities to apply for a statewide license were AT&T and Verizon.³¹ These companies entered the market with the intent of building an expansive Internet Protocol Television (IPTV) network. Since the spring of 2007, twenty seven existing video providers, mostly local cable companies, have applied for statewide licenses.

Primary complaints surrounding PEG access surround AT&T's U-verse system, which, say detractors, does not provide PEG channels to consumers as they are currently provided by other cable operators. ACM assembled the following list of complaints regarding AT&T's handling of PEG channels:

- AT&T's PEG application does not support closed-captioning even though federal regulations require multi-channel video service providers to pass closed captions through to viewers. As a result, hearing-impaired subscribers are unable to view closed captions (CC) on PEG programming (e.g., City Council meetings) that are captioned.
- AT&T's PEG application will not pass through secondary audio signals, or video description. Using the secondary audio programming (SAP) format, a programmer can send two audio signals—one in one language, and a second signal in another. In California, SAP is widely used to bring educational programming to the Spanish-speaking community. For example, the Los Angeles City Council meetings are cablecast in Spanish and English.
- AT&T will only carry a signal that is inferior in quality to even standard definition television programming. This is so even though many PEG programmers can provide signals in standard or high-definition.
- PEG channels cannot be recorded like other channels.

28. Charles B. Goldfarb. Congressional Research Service. Public, Educational, and Governmental (PEG) Access Cable Television Channels: Issues for Congress. September 5, 2008. Order Code RL34649

29. Michigan House. 2008 Bill No.5693. December 21, 2006.

30. FCC. The Digital TV Transition. 2008. <http://www.dtv.gov/>. Accessed 02/19/2009.

31. Currently, Verizon and AT&T are the principal players in statewide video franchising. They are both aggressively building high speed multimedia networks throughout the state. Verizon's system, called Fios TV, is based on an all fiber optic network (FTTP) while AT&T's U-Verse relies on a hybrid fiber optic/copper system, the latter of which is run from more centralized junction boxes to the subscriber's location (the copper line is an average of 3,000 feet.)

- PEG channels cannot be selected using the same menus that are used to select other commercial channels, and no information is available about the content of PEG programming. It is also impossible to “surf” for PEG channels in the same way one can “surf” other commercial channels.
- It can take a substantial amount of time and effort to access the PEG programming—much longer than it takes to switch to a commercial channel (it takes an average of 30-90 seconds to load and access a desired PEG program via a 5-step process).
- Subscribers cannot switch to a PEG channel by entering its channel number on the remote control. PEG channels are not placed on the same channel numbers as they appear on the lineup of the local incumbent provider—In fact, they have no real channel number.
- PEG channels do not appear on the basic service tier of video programming. Instead, PEG channels are given the inferior status of a mere Internet application, rather than a true video channel that is similar to all the commercial channels on the AT&T system.
- PEG channels cannot transmit Emergency Alert System (EAS) messages.
- PEG channel functionality is not similar to commercial stations.
- Subscribers are unable to view a PEG channel for a long period of time (e.g., a lengthy City Council meeting) because the U-verse video stream “times out” and shuts off after long periods of uninterrupted viewing.
- As compared to no delay via the standard PEG transmission method, there is about a six-second delay via the U-verse video stream, which is especially a concern during any live call-in program (e.g., “Homework Helpline”) when a caller such as a student asks a question and has to wait for about six seconds before the teacher hears it and can respond.

The only complaints directed at Verizon concerning its PEG service have been from local providers, saying that Verizon has been slow in starting its PEG service. Verizon’s PEG access is more conventional; it’s equivalent to local provider PEG access. Because of this, there are no major issues with Verizon once PEG service has been initiated.

As of January 1, 2009, any legacy agreements between municipalities and video providers are void. If a municipality had an agreement that was advantageous in an aspect, it will no longer be able to continue that agreement.

Conclusions and Recommendations

More than half the states in the U.S. have a form of statewide authority over licensing of the video services sector. Some SVF states have elected to regulate fully at the state level, establishing fee structures, rights of way, build-out requirements, and PEG and I-Nets access. Other SVF states merely issue licenses, while municipalities maintain control over much of the regulatory enterprise. In Virginia, for example, companies have up to 120 days to negotiate contracts with local authorities before the state is involved in the licensing process. Such diversity in legal structure could signal one of two things: either it is too soon to tell whether the video services sector will converge on a uniform method of regulation across the nation, or a one-size-fits all strategy is not an ideal regulatory remedy for the states. That said, it is still important to understand the ramifications of various legal tendons, particularly the impact on those stakeholders that have the most to gain or lose in a changing regulatory environment. As Minnesota and other states consider implementing some form of SVF, the results of this study should give some barometer as to the types of responses and effects the policy would elicit.

References

Access San Francisco, San Francisco Community Media (2009), http://accessf.org/soscoalition/DIVCA_issues.php, accessed 2/19/2009.

Alliance for Community Media and the National Association of Telecommunications Officers and Advisors (2008), "Assessing Damage: Survey Shows that State Video Franchise Laws Bring No Rate Relief while Harming Public Benefits," <http://www.natoa.org/policy-advocacy/policy-matters/assessing-the-damage-acm-surve.html>, accessed 2/26/2009.

Bird's Eye.net (2006), "Local Video Franchise: Asset or Liability? A Journey from Local Video Monopoly to a True Broadband Free Market Economy," http://www.birds-eye.net/article_archive/local_video_franchise_asset_or_liability.htm, accessed 02/19/2009.

Book, Connie Ledoux (2008), "Simple Questions, Complex Answers: An Examination of SB5's Impact on Texas," White Paper, Elon University, North Carolina.

Britto, Jerry and Jerry Ellig (2006), "Video Killed the Franchise Star: The Consumer Cost of Cable Franchising and Proposed Policy Alternatives," *Journal on Telecommunications and High Technology Law*, Vol. 5, p. 199-253.

California Assembly Bill 2987 (2006).

California Public Utilities Commission (2009), <http://www.cpuc.ca.gov/PUC/Telco/Information+for+providing+service/videofranchising.htm> Accessed 2/21/2009.

Crandall, Robert, J. Gregory Sidak and Hal J. Singer (2007), "Does Video Delivered over a Telephone Network Require a Cable Franchise?" *Federal Communications Law Journal*, Vol. 59, No. 2, pp. 251-294.

Federal Communications Commission (2009), Report on Cable Industry Prices, Adopted January 15, 2009, Released January 16, 2009.

Federal Communications Commission (2009), Thirteenth Annual Report, Adopted November 27, 2007, Released January 16, 2009.

Federal Communications Commission (1998), Fact Sheet on Public, Educational and Governmental Access Channels, <http://www.fcc.gov/mb/facts/pegfacts.html>, accessed 02/19/2009.

Federal Communications Commission (2008), The Digital TV Transition, <http://www.dtv.gov/>, accessed 02/19/2009.

Garcia, Gabriel (2008), Texas Community Media Summit, Presentation, University of Texas, Austin, Texas, March 1, 2008. <http://21stcenturyproject.org/docs/media/GGSB5.ppt>. Accessed 02/19/2008.

Goldfarb, Charles B. (2008), Public, Educational, and Governmental (PEG) Access Cable Television Channels: Issues for Congress, Congressional Research Service, Order Code RL34649.

Goodman, Josh (2008), "Unscripted Ending: The Picture Gets Blurry for Public Access Television," governing.com, <http://www.governing.com/articles/0802tv.htm>, accessed 02/19/2009.

Grant, Kathy (2005), "Summary of Video Franchising Provisions of SB 5," <http://www.texaltel.org/>, accessed 02/19/2009.

Hawkins, Rondella (2007), "State Telecommunication Law: Time for a Change." Presentation to Minnesota Association of Community Telecommunications Administrators, September 13-14, 2007, <http://www.tatoa.org/docs/MACTA2007finalpresentation.pdf>. Accessed 02/19/2009.

Isiogu, Orjiakor N. (2009), "Status of Competition for Video Services in Michigan," Michigan Public Service Commission, Department of Energy, Labor & Economic Growth.

Katz, Diane S. (2006), "Assessing the Case for Cable Franchise Reform." Mackinac Center for Public Policy, Policy Brief.

Testimony of Sharon King, Alliance for Community Media, before the Federal Communications Commission (2006), Annual Assessment of the Status of Competition for the Delivery of Video Programming, MB Docket No. 05-255, accessed 02/19/2009.

State of Michigan House (2006), Bill No.5693.

State of Michigan Public Acts of 2006 (2006), Act No. 480, http://www.michigan.gov/documents/mpsc/2006_PA_480_183428_7.pdf. Accessed 02/19/2009.

Texas 79th Legislature (2005), Bill SB5. <http://www.capitol.state.tx.us/tlodocs/792/billtext/pdf/SB00005F.pdf> Accessed 02/19/2009.

Zenou, Yves Zenou and Nicolas Boccard (2000), "Racial Discrimination and Redlining in Cities," Journal of Urban Economics, Vol. 48, No. 2, pp. 260-285.

Appendix

Attendees at the meeting with municipalities and PEG advocates, July 17, 2008.

- Eric Johnson, City Administrator, Oak Park Heights (pop. 4676 – Washington County)
- Kim Moore-Sykes, Assistant City Manager, St. Anthony Village; Chair, LMC Telecommunications Policy Task Force
- Michael Martin, Planner, City of Kasson; Member, LMC Telecommunications Policy Task Force
- Anita Stetch, Chair, Duluth Public Access Corporation (Duluth PAC); member of Minnesota Cable Board
- Sally Koenecke, Executive Director, Lake Minnetonka Cable Communications Commission (LMCCC); President, Minnesota Association of Community Telecommunications Administrators (MACTA – representing cable franchise administrators)
- Jodie Miller, Executive Director, Northern Dakota County Cable Commission (NDC4); Chair, MACTA Legislative Committee
- Mike Reardon, Cable Officer, City of Saint Paul
- Mike Wassenaar, Manager, Saint Paul Neighborhood Network (SPNN); community access video programming services; President, 2007-08: Alliance for Community Media (ACM)

Invitees to the meeting with Communities of Color, August 5, 2008.

- Alfred Babington Johnson, Stairstep Initiative
- Yvonne Cheung Ho, Metropolitan Economic Development Association (MEDA)
- Lester Collins, Council on Black Minnesotans
- William Davis, Minneapolis NAACP
- Ilean Her, Council on Asian-Pacific Minnesotans
- Fong Heu, Hmong producer
- AnnaMarie Hill, Minnesota Indian Affairs Council
- Nathaniel Khaliq, St. Paul NAACP
- Ramon Leon, Latino Economic Development Center
- Maritza Mariani, Neighborhood Development Alliance
- Kwame McDonald, St Paul Resident, 651-646-3441
- Abdalqadir Osman, Somali educator
- Duane K. Reed, Minneapolis Branch, NAACP
- Hussein Samatar, African Development Center
- Hashi Shafi, Somali Action Alliance
- Mukhtar Thakur, Geetmala TV
- Bao Vang, Hmong American Partnership
- Hoa Young, Vietnamese Broadcasting of Minnesota

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